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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/576,312

04/18/2006

Johannus Leopoldus Bakx

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS

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EXAMINER

CHU, KIM KWOK

ART UNIT

PAPER NUMBER

2627

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/576,312	Applicant(s) BAKX, JOHANNUS LEOPOLDUS	
	Examiner KIM CHU	Art Unit 2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Pre-Amendment filed on 4/18/2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 4/18/2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Drawing Objection

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the two optical unit 130 as in Claim 18 must be shown or the feature canceled from the claim. No new matter should be entered.

Claim Objections

2. Claims 1-18 are objected to because of the following informality:

(a) in Claims 1-18, the numerical labels inside the parenthesis, for example, (60; 70) in Claim 1, lines 3, should be deleted.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

*A person shall be entitled to a patent unless --
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.*

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4. Claims 1-17 are rejected under 35 U.S.C. § 102(b) as being anticipated by Kamatani (U.S. Patent 5,629,917).

5. Kamatani teaches an optical detector system having all of the elements and means as recited in Claims 1-14 and 16. For example, Kamatani teaches the following:

(a) with respect to Claim 1, the optical detector system (Fig. 4) comprising at least two optical detector units 46N 47N, each optical detector unit 46N/47N comprising an array of detector segments (Fig. 4; detector unit 46N/47N includes a plurality of detector segments/elements) and at least one output terminal (Fig. 4; 46N and 47N has at least one output to amplifier 50; column 4, lines 1-3) defining a current output of the corresponding optical detector unit 46N, 47N; wherein at least one current output (Fig. 4) of a first optical detector unit 46N is connected directly to a corresponding current output of a second optical detector unit 47N at an output node (Fig. 4; the input terminal of amplifier 50 is the connected node).

(b) with respect to Claim 2, the two optical detector units (46N, 47N) are of mutually identical design (Fig. 4; detectors 46N and 47N are designed to detect light beams).

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(c) with respect to Claim 3, the two optical detector units 46N, 47N have mutually different wavelength sensitivity ranges (Fig. 4; column 3, lines 59-65).

(d) with respect to Claim 4, each current output of the first optical detector unit 46N is connected directly to the corresponding current output of the second optical detector unit 47N at a corresponding output node (Fig. 4).

(e) with respect to Claim 5, each optical detector unit 46N/47N has a non-operative state (non-detective) in which its outputs are floating and/or present a high input impedance (Fig. 4; non-detective state has no output current/signal).

(f) with respect to Claim 6, each optical detector unit 46N/47N is in its non-operative state if it does not receive any suitable light (Fig. 4; non-detective state has no output current/signal).

(g) with respect to Claim 7, an optical system for a disc drive apparatus (Fig. 4); a signal processing circuit 50 having at least one input terminal connected via a line to a corresponding output node of the optical detector system 46N, 47N (Fig. 4).

(h) with respect to Claim 8, at least one input terminal (in amplifier 50) comprises a current input (Fig. 4; amplifier 50 has current/signal inputs).

(i) with respect to claim 9, at least one input terminal (in amplifier 50) comprises a voltage input, and wherein a terminator resistor (Fig. 4; amplifier 50 inherently has an input biased by a resistor) is connected to the line.

(j) with respect to Claim 10, the terminator resistor (in amplifier 50) is arranged in the proximity of the signal processing circuit 50 (Fig. 4; amplifier 50 inherently has an input biased by a resistor).

(k) with respect to Claim 11, the terminator resistor (in amplifier 50) is integrated in an IC implementing the signal processing circuit 50 (Fig. 4; integrated amplifier 50 includes components such as resistors as a signal biased means).

(l) with respect to Claim 12, the optical system for a disc drive apparatus (Fig. 4) comprising light beam generating means 40 for generating at least two light beams (Figs. 2 and 4; column 3, lines 1 and 2; lines 62-65); optical components 42, 43 for directing and focusing the light beams in a focal spot (45n or 45b or 45a) on an optical disc 44 (Fig. 4); optical components 43, 42 for directing reflected light beams to respective optical detector units 46N, 47N of the optical detector system (Fig. 4).

(m) with respect to Claim 13, the optical components 42, 43 are arranged such that the light beams have at least partly

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common light paths (Fig. 4; light beams are diffracted from the same horizontal plane).

(n) with respect to Claim 14, the optical components 42, 43 are arranged such that the light beams have completely separate light paths (Fig. 4; light beams are diffracted at different paths towards 45n, 45b and 45a).

(o) with respect to Claim 16, includes a disc drive apparatus comprising an optical system 42, 43 (Fig. 4).

6. Claims 15 and 17 have limitations similar to those treated in the above rejection, and are met by the reference as discussed above.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claim 18 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Kamatani (U.S. Patent 5,629,917) in view of Horita (U.S. Patent 6,469,965).

Kamatani teaches an optical unit very similar to that of the present invention as claim in Claim 15. However, Kamatani does not teach the following;

(a) with respect to Claim 18, at least two optical units each having a light generating means for generating a light beam.

Horita teaches an optical unit having two separated optical units 3A and 3B each having a light generating means 17A and 17B respectively (Fig. 5).

In a hybrid optical storage media detecting system such as Kamatani, it is an economical choice to use diffracted light beams from one light source for different storage layers.

However, when the stored data density becomes larger within the

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same media, it is better to apply a designated single light source which generates a single wavelength for its corresponding storage layer. Hence, instead of diffracting a single light beam into two light beams for two storage recording layers such as Kamatani's, it would have been obvious to one of ordinary skill in the art to replace Kamatani's single light source and its light diffracting means with two separated optical unit such as Horita's, because each separated optical unit provides better wavelength, intensity and light directing path than two diffracted light beams.

Related Prior Art

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nakano et al. (7,245,564) is pertinent because Nakano teaches an optical disc system having two separated laser sources.

Ijima et al. (6,597,642) is pertinent because Ijima teaches an optical disc system having two separated laser sources.

Yamamoto et al. (4,945,525) is pertinent because Yamamoto teaches an optical disc system having two separated optical means to detect light beams.

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10. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Kim CHU whose telephone number is (571) 272-7585 between 9:30 am to 6:00 pm, Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen, can be reached on (571) 272-7579.

The fax number for the organization where this application or proceeding is assigned is (571) 273-8300

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished application is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9191 (toll free).

/Kim-Kwok CHU/

Examiner AU2627

April 7, 2008
(571) 272-7585

/HOA T NGUYEN/

Supervisory Patent Examiner

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